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Section II. (REMARKS)

The pending claims under consideration in the application are claims 1-25 of which claims 16-25 have been withdrawn from consideration.

Election/Restrictions

Applicants acknowledge the finalization of the restriction requirement, and maintain the request for rejoinder of the withdrawn claims upon the composition claims being found allowable.

Priority

The examiner's remarks in the November 18, 2005 Office Action concerning priority are noted.

Rejection under 35 U.S.C. §102(e)

In the November 18, 2005 Office Action, claims 1-15 were rejected under 35 U.S.C. §102(e) as being anticipated by Mayorga et al. (U.S. Patent No. 6,858,697).

In his ensuing remarks concerning this rejection, the examiner has stated that "Mayorga et al. disclose stabilized 1, 3, 5, 7 tetramethylxylotetrasiloxane [sic]," identifying the abstract, column 4, lines 62-67, column 11-12 and claims 13-27 of such reference, and concluding that "[T]he compositions disclosed in Mayorga et al. read on the elected species of the instant application."

These rejections are traversed in application to the claims as amended herein. The patentable distinction of the amended claims over the cited reference is set out in the ensuing discussion.

Claim 1 has been amended herein to recite "[A] stabilized cyclosiloxane material for use as a dielectric precursor, comprising a cyclosiloxane and an end-capping reagent."

Mayorga fails to teach "an end-capping reagent" reactive with a cyclosiloxane. See the instant application at page 12, lines 17-26:

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"As used herein the term end-capping reagent is defined as a reagent, which readily reacts with hydroxyl or radical groups resulting from cleavage of a [Si-O] bond of a siloxane backbone or cyclosiloxane ring, thereby forming a siloxane reagent having a non-reactive capped end. Useful end-capping agents include monofunctional-silylating agents having a formula $R_1R_2R_3SiX$, wherein X is a reactive site, selected from but not limited to, H, OH, silyloxy and nitrogen-containing silyl, each of R1, R2 and R3 are same or different and independently selected from hydrogen, C1-C8 alkyl, C5-C12 aryl. Examples of useful end-capping reagents include but are not limited to naphthylphenylmethylsilanol (NPMS), silyl-N-methylacetamides, trifluoropropyl dimethylsilyl-N-methylacetamide (TFSA), bis(trimethylsiloxy)methylsilane, and hexamethyldisilazane."

No such end-capping reagent is described or in any way suggested by Mayorga.

Claim 2 has been correspondingly amended to recite "[a] siloxane reagent dosed with a stabilizing agent(s) comprising an end-capping reagent and optionally a free radical inhibitor."

No end-capping reagent is taught or suggested by Mayorga.

All other pending, non-withdrawn claims 3-15 are dependent directly or indirectly from claim 1, and are likewise differentiated from Mayorga.

On such basis alone, the claims 1-15 are now in condition for allowance.

In addition, a further basis for patentable distinction exists in respect of claims 6-8.

Claim 6 has been amended to recite that "said end-capping reagent" comprises a reagent selected from the group consisting of silyl-N-methylacetamides, trifluoropropyl dimethylsilyl-N-methylacetamide and hexamethyldisilazane. Mayorga teaches away from such compounds in disclosing at column 6, lines 4-6 that "[N]one of the additives contain nitrogen that is believed to have a detrimental impact on the quality of the resulting CVD films." Nitrogenous compounds of the type claimed in claim 6 therefore are contraindicated by the disclosure of Mayorga.

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Additionally, claim 7 as now amended recites a concentration range of "from 1.00% to 10.0%. Mayorga, by contrast, discloses that the additives taught therein "were generally found to be effective over the concentration range of 100-1000 ppm (0.01-0.10%)." Since the concentration range of amended claim 7 is not described in Mayorga, and Mayorga instead teaches away from such range of claim 7, by disclosure of 100-1000 ppm, there is no basis for anticipation of claim 7 in the Mayorga reference.

Claim 8 has been amended to recite, inter alia, bis(trimethylsiloxy)methyl silane and an end-capping reagent. As discussed hereinabove, there is no mention in Mayorga of end-capping. Claim 8 as amended therefore merits allowance.

In sum, claims 1-15 are in no way anticipated by Mayorga.

Mayorga lacks at least one recited feature of each of the pending claims 1-15, and therefore cannot be anticipated by such reference. On such basis, the examiner is respectfully requested to withdraw the rejection of claims 1-15 that was made on §102 grounds.

Rejection under 35 U.S.C. §103(a)

In the November 18, 2005 Office Action:

claims 1-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Mayorga et al. (U.S. Patent No. 6,858,697).

The Examiner contended in the November 18, 2006 Office Action that the instant claimed invention is substantially disclosed in Mayorga et al., citing 102(e) and stating that some minor features, such as in claims 6-7, if not explicitly disclosed in Mayorga et al., would nonetheless be considered obvious modifications, concluding that one skilled in the art would be motivated to tweak process parameters in order to optimize the efficiency of making the stabilized siloxanes in Mayorga et al.

As discussed in the preceding pages concerning the §102(e) rejections, Claim 1 has been

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amended herein to recite “[A] stabilized cyclosiloxane material for use as a dielectric precursor, comprising a cyclosiloxane and an end-capping reagent.”

Mayorga fails to teach “an end-capping reagent” reactive with a cyclosiloxane. See the instant application at page 12, lines 17-26:

“As used herein the term end-capping reagent is defined as a reagent, which readily reacts with hydroxyl or radical groups resulting from cleavage of a [Si-O] bond of a siloxane backbone or cyclosiloxane ring, thereby forming a siloxane reagent having a non-reactive capped end. Useful end-capping agents include monofunctional-silylating agents having a formula $R_1R_2R_3SiX$, wherein X is a reactive site, selected from but not limited to, H, OH, silyloxy and nitrogen-containing silyl, each of R1, R2 and R3 are same or different and independently selected from hydrogen, C1-C8 alkyl, C5-C12 aryl. Examples of useful end-capping reagents include but are not limited to naphthylphenylmethylsilanol (NPMS), silyl-N-methylacetamides, trifluoropropyl dimethylsilyl-N-methylacetamide (TFSA), bis(trimethylsiloxy)methylsilane, and hexamethyldisilazane.”

No such end-capping reagent is described or in any way suggested by Mayorga.

Claim 2 has been correspondingly amended to recite “[a] siloxane reagent dosed with a stabilizing agent(s) comprising an end-capping reagent and optionally a free radical inhibitor.”

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All other pending, non-withdrawn claims 3-15 are dependent directly or indirectly from claim 1, and are likewise differentiated from Mayorga.

On such basis alone, the claims 1-15 are now in condition for allowance.

In addition, a further basis for patentable distinction exists in respect of claims 6-8.

Claim 6 has been amended to recite that “said end-capping reagent” comprises a reagent selected from the group consisting of silyl-N-methylacetamides, trifluoropropyl dimethylsilyl-N-

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methylacetamide and hexamethyldisilanzane. Mayorga teaches away from such compounds in disclosing at column 6, lines 4-6 that “[N]one of the additives contain nitrogen that is believed to have a detrimental impact on the quality of the resulting CVD films.” Nitrogenous compounds of the type claimed in claim 6 therefore are contraindicated by the disclosure of Mayorga.

Additionally, claim 7 as now amended recites a concentration range of “from 1.00% to 10.0%.” Mayorga, by contrast, discloses that the additives taught therein “were generally found to be effective over the concentration range of 100-1000 ppm (0.01-0.10%).” Since the concentration range of amended claim 7 is not described in Mayorga, and Mayorga instead teaches away from such range of claim 7, by disclosure of 100-1000 ppm, there is no basis for obviousness of claim 7 in Mayorga.

Claim 8 has been amended to recite, inter alia, bis(trimethylsiloxy)methyl silane and an end-capping reagent. As discussed hereinabove, there is no mention in Mayorga of end-capping. Claim 8 as amended therefore merits allowance.

In sum, claims 1-15 are in no way anticipated by Mayorga.

Mayorga lacks at least one recited feature of each of the pending claims 1-15, and is incapable of rendering the subject matter of applicants’ claims 1-15 obvious. On such basis, the examiner is respectfully requested to withdraw the rejection of claims 1-15 that was made on §103 grounds.

Apart from the foregoing, claims 10-15 and 25 have been amended to correct typographical or grammatical errors therein.

In addition, withdrawn claims 16 and 23 have been amended for consistency with the claims currently being prosecuted, to facilitate rejoinder of the withdrawn claims upon issue of the Notice of Allowance in the application.


CONCLUSION

Based on all of the foregoing, pending claims 1-15 are now in form and condition for allowance. If any issues remain, incident to the formal allowance of the application, the Examiner is

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requested to contact the undersigned attorneys at (919) 419-9350 to resolve same, so that the patent on this application can be issued at the earliest possible time. The Examiner's thorough review of the application is acknowledged with appreciation.

Respectfully submitted,



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